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CONCURRENT WORK-EDUCATION (PROGRAMS IN THE 50 STATES 1965-66). INITIAL DRAFT.

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A DESCRIPTIVE REPORT OF THE CONDUCT OR STATUS OF CONCURRENT WORK-EDUCATION PROGRAMS IN EACH OF THE 50 STATES IS PRESENTED. DATA ARE REPORTED FOR TWO DISTINCT PROGRAMS--(1) COOPERATIVE EDUCATION, A PROGRAM IN WHICH THE STUDENTS WORK PART-TIME AND STUDY IN A FORMAL CLASSROOM SETTING PART-TIME, AND (2) WORK-STUDY, A PROGRAM IN WHICH STUDENTS IN VOCATIONAL PROGRAMS, WHO HAVE NEED OF FINANCIAL ASSISTANCE IN ORDER TO REMAIN IN SCHOOL, ARE PLACED IN PUBLIC AGENCIES, MAINLY THE LOCAL SCHOOL. DATA WERE OBTAINED FROM EACH OF THE 50 STATE DEPARTMENT OF EDUCATION OFFICES VIA PERSONAL VISITS AND FROM A SAMPLE OF INDIVIDUAL SCHOOL DISTRICTS VIA MAILED QUESTIONNAIRES. OF 1,836 QUESTIONNAIRES SENT TO A RANDOM SAMPLE OF 1,757 HIGH SCHOOLS AND 88 POST-HIGH SCHOOLS IN THE UNITED STATES, 1,535 WERE RETURNED. APPROXIMATELY 18,000 HIGH SCHOOLS OFFERED GRADES 10, 11, AND 12 IN THE UNITED STATES DURING 1965-66. OF THESE, 2,509 HAD A WORK-STUDY OFFERING AND 3,333 HAD COOPERATIVE-EDUCATION PROGRAMS. THERE WERE 44,817 HIGH SCHOOL STUDENTS AND 7,418 POST-HIGH SCHOOL STUDENTS ENROLLED IN WORK-STUDY PROGRAMS, AND 117,035 HIGH SCHOOL STUDENTS AND 4,243 POST-HIGH SCHOOL STUDENTS ENROLLED IN COOPERATIVE-EDUCATION PROGRAMS. CORRELATIONS WERE COMPUTED BETWEEN ENROLLMENTS IN THE PROGRAMS AND SELECTED DEMOGRAPHIC, ECONOMIC, AND ORGANIZATIONAL VARIABLES RELATED TO THE INDIVIDUAL SCHOOLS. ENROLLMENTS BY STATES AND VOCATIONAL EDUCATION AREAS AND EXPENDITURES BY STATES ARE INCLUDED. (PS)

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Concurrent Work-Education

(Programs in the 50 States 1965-66)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Initial draft of U.S.O.E. project 6-2851 report

FOR DISCUSSION ONLY

The primary function of research in education on the university campus is to contribute to the body of knowledge in relation to the organization and conduct of education. Research also has the function of educating students, especially graduate students, and providing them with a research apprenticeship. If the research apprenticeship can be related to the student's dissertation, the function of support and apprenticeship for the doctoral candidates has been enhanced. Recently, research has provided most of the support for doctoral candidates. It is essential that the doctoral candidate fulfills his requirement to do an independent research study. His research should be something that will contribute to his professional growth in an area of interest to him as an individual and not be completely dependent upon the interest of the professor directing the research project.

The doctoral candidates employed on this project satisfied the requirement, while being supported on the sponsored research project, of doing independent research and gaining an apprenticeship in research. The research reported herein satisfies all of the above in that the project research and the doctoral research were independent but related.

Four bright energetic young men who are doctoral candidates at the University of Illinois were employed on this research project. It seems to the author to be almost needless to say that their contribution was essential to the satisfactory completion of the project. Without exception, they gave of their time and their energies beyond the requirements of the modest stipend they received from the University of Illinois. These four men were James E. Callagher, Thomas R. Jensen, Menno DiLiberto, and J. William Ullery. To each of them I acknowledge a debt of gratitude for their contribution to the successful completion of this project.

The state office personnel in the various states are to be acknowledged also for their ready cooperation with the research staff when we arrived at their office unannounced to solicit data on concurrent work-education programs.

Last but not least, we must acknowledge the efforts of the office staff (most of whom were undergraduate girls at the University of Illinois) who were of invaluable assistance throughout the project. I must especially acknowledge in this area Miss Anita Tripp.

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CHAPTER I

INTRODUCTION

The data presented in this report represents two distinct aspects of vocational education: those programs that we have typically called co-operative programs and Work-Study as defined in Section 13 of Public Law 88-210. Some of the points to be made about cooperative education may sound truistic to vocational educators; be that as it may, it is noted that the data which are presented substantiate these truths. I would cite the following in this category: Distributive Education has the greatest number of cooperative programs and the greatest number of students in each and every state. Relative newcomers to cooperative education are Agriculture Education and Home Economics. To Home Economics the entire concept of occupational preparation and cooperative education is new. To Agriculture the cooperative eduation concept is a modification or replacement of the traditional on-the-farm project method of providing the student with work experience. Between Distributive Education and the newcomers are such areas as Trade and Industrial Education and Diversified Occupations; these have a few years experience with cooperative education. In some states, notably Louisiana, labor pressures have forced the discontinuation of cooperative programs that involve the industrial occupations. Nevertheless, the overall trend is for an increase in the number of programs and in the number of students in each program across all the areas of vocational education.

Cooperative Education

Cooperative education, a program whereby the students work part-time and study in a formal classroom setting part-time, is of long standing in United States public education. Although the genesis of this program came from Cincinatti University at the turn of the century and was related primarily to engineering education, it has grown to be popular in other

fields of public education.

One of the desirable aspects of cooperative education is that education and work cease to be mutually exclusive of each other. There is some work involved in education; and it is readily recognized that there is some education in work. Although it has not been pinpointed (and this study will not attempt to pinpoint it), it has been hypothesized that there is considerable more attitude formation in the work environment than there is in the educational environment, at least attitude formation in terms of socially necessary attitudes for continued employment.

It must be recognized at the outset that one of the conditions that mitigates against rapid growth of cooperative education is the amount of effort necessary on the part of the professional staff in each school in order to locate employment stations and arrange working conditions for the students. Sometimes these arrangements have to be made over the objections of labor unions and in spite of considerable reluctance on the part of employers.

Work-Study

The Vocational Education Act of 1963, Public Law 88-210, had in it a section wherein the federal government would reimburse schools for employing students part-time in order to permit them to remain in school. The assumption herein is that there are a number of students from low-income families that could not remain in school unless they were able to earn a modest salary every month. During the year for which data are reported in this study, school year 1965-66, the federal government reimbursed the school districts (via the state offices) for the total expenditures in Work-Study. The total appropriation for Work-Study was modest in

comparison to the amount of money spent for the school lunch program and other federally supported programs; but it was sufficient to generate a considerable amount of activity in the local school districts. The term Work-Study also has other connotations in that it is used in higher education acts and is used by some local districts. For the purpose of this study only Work-Study in vocational education is included.

Concurrent Work-Education

The title of the report, Concurrent Work-Education Programs, was an attempt to use a term which would be comprehensive enough to include a variety of vocational education activities. The term "concurrent work-education programs" includes all public high school and junior college programs that provide students with formal education and conjunctive work experience. This definition is broad enough to include programs encompassed by various other general titles in common usage such as Cooperative Education, Work Education, and Work Experience. More specific titles within the realm of concurrent work-education programs include: Distributive Education (D.E.), Office Occupations (O.O.), Diversified Occupations (D.O.), and many other but usually less universal titles such as Part-Time Industrial Cooperative Education and Agri-Business. Differences in usage of terminology shall not eliminate programs from this study.

Methodology

This report is basically a descriptive report of the conduct or status of concurrent work-education programs (as per the above description) in each of the fifty states. The data were solicited from each of the state offices via personal visits to the states and from individual school

districts via mailed questionnaire. It is recognized that each state submits a statistical report and a descriptive report to USOE every year concerning their programs. However, USOE is generally three years behind in processing these reports; and even then they are of necessity very brief and concern themselves mainly with the expenditures of federal monies. This report shall concern itself primarily with the activities in which the students become involved.

Data Collection Procedures. Typically the research staff arrived at the state department of education unannounced and proceeded to gather the necessary information. Early attempts to set up appointments proved to be ineffectual since many of the vocational education staff spend much of their time in the field. Further, the information needed was always available from the secretarial staff and did not require the presence of area supervisors. This was the case not only with vocational education, but also with the superintendent's office from which general data about the schools in the state were obtained.

The data collection procedure involved the use of the reports made to USOE and in addition, and of considerable more importance, the reports made by the individual school districts to the state office. In instances where the school reports to the state offices were missing, the project staff solicited this information directly from the schools. The absences of reports from the schools most often resulted from large cities within the state functioning relatively independently of the state office. A case in point would be New York City which submits only gross reports to the state office in Albany.

The state superintendent's office usually had the information desired by this project in published form, and occasionally the vocational

education office had some of the information in published form; but most of the information had to be duplicated by the research staff.

In order to give some flavor to this report and better enable the author to present accurate descriptions of vocational education in each state, copies of the state plan for vocational education, annual descriptive reports, coordinators' handbooks and similar state publications were collected.

The questionnaire data to be reported herein was solicited from a random sample of the public high schools, junior colleges, and post-high school vocational schools via the mail. The sample was selected prior to the visits to the state offices so that general data about the schools would include those schools with concurrent work-education programs and those schools in the sample whether or not they had concurrent work-education programs.

It has been hypothesized for many years that there are two kinds of vocational education programs. There are those that receive reimbursement for a portion of the cost from federal funds (data on these is generally conceived to be readily available); then there are others that are reimbursable for which the school elects not to claim reimbursement. As the consequence, there is no statewide or nationwide information available about them. The function of the data collected on the random sample was to test this hypothesis.

Whereas, the data collection from the state offices required only that the project staff know precisely what it was they wanted and the appropriate offices to visit to get the information, the mailed questionnaire required careful development and two pilot studies to insure prompt, complete returns with reliable and valid responses.

In an attempt to insure a high percentage of response, the initial questionnaire required only the return of a self-addressed postcard (this instrument and all others appear in the appendix). The response solicited on this postcard was merely checked to indicate whether or not a given school had a reimbursed concurrent work-education and/or non-reimubrsed CWE program. It is obvious that the collection of information about reimbursed programs was redundant since this information is available from the state offices. The advantage of the redundancy is that it provided a built-in reliability check.

Indiana was used for the first pilot study on the questionnaire. Each of the administrators who did not return the questionnaire was called to determine why he did not respond. Each was encouraged to be as candid as possible and care was taken to develop sufficient rapport. No less than 21 of the administrators said they "did not receive the letter or did not remember receiving it." Their replies were the only evidence available and forced the conclusion that somehow the questionnaire was not reaching the addressee (or his attention). Consequently, the revision dictated was to print "ATTENTION OF PRESENT HIGH SCHOOL ADMINISTRATOR" below the name and address on each envelope. The opening paragraph was revised and a quick re-mailing for non-respondents was planned. The second mailing (typical practice in mailed questionnaires) is based on the hypothesis that administrators inadvertently and intentionally consign some of their mail to the "this can wait pile" without inspection. The hope is that administrators will not be dead-ending quite as much mail on the day they receive the second mailing.

The Indiana pilot gave no evidence that the use of a postcard for return enhanced the return. As a consequence the second pilot on the

questionnaire (sent to schools in Illinois) omitted the postcard and inserted instead a self-addressed envelope for returning the one page questionnaire. A second mailing and phone calls were both used with the non-respondents in the Illinois pilot. The phone calls led the project staff to conclude that the questionnaire was sufficiently refined for nationwide mailing. (The phone calls to non-respondents in Indiana and Illinois account for the one hundred percent return report for those two states.)

Variables, Coding, and Rationale. Consistent with my feelings about the function of research in relation to the graduate students employed, much of the data collected via the mailed questionnaire (see the appendix) and much of the information collected at state offices was for the benefit of the graduate students and not directly related to this report. The additions requested by the graduate students were honored in all cases in which the additions did not impose a hardship on the project or detract from the possibility of satisfactory returns. The variables discussed in this section will be only those directly related to this report. A lot of information collected by the project staff will not be reported herein due to limitations in funds which prohibit detailed analysis of individual student data. (The funds for this project were cut 57% as the result of unexpectedly small congressional appropriations for vocational education research.)

Size of School: USOE collects and tabulates enrollment figures for schools such as junior colleges and area vocational schools. It is possible from published reports to get a picture of the relative size of these programs across the various states. However, this is not the case with high schools. There are a variety of high school organizations rang-

ing from six-year schools to two-year schools. In order to have a uniform assessment of the student body size, this project tabulated the enrollment figures in grades ten, eleven, and twelve exclusively. The intent of this data was to differentiate as accurately as possible among schools by the size of student body. It was expected that the size of the student body would have an influence upon the number of programs that the school could offer. The reason for selecting the enrollments in grades ten, eleven, and twelve was to permit some consistency across all schools. There are a variety of school organizations ranging from those that include grades seven through twelve to those that include grades ten, eleven, and twelve only. In addition to the desire to be consistent in the interpretation of the size of the student body, there was also the recognition that CWE programs are by and large restricted to tenth, eleventh, and twelfth graders; in fact, they are restricted to twelfth graders only in many high schools.

As was mentioned above, it was expected that the size of the student body would have an influence on the offerings in the school. It was also expected that the organization of the district and of the school could have some effect upon the breadth of offerings. CWE programs are not easy to organize, develop, and maintain. It was hypothesized that the greater the range of administrative responsibility, the less likely that there would be CWE programs; for example, a school district where the superintendent is responsible for grades K through twelve might be less likely to have CWE programs than would a high school district where both the superintendent and principal had the administrative responsibility for grades ten, eleven, and twelve only. It was not expected that this scope of administrative responsibility would carry over to post-high school

institutions, because they are unique in comparison to the high schools. The breadth of administrative responsibility in post-high school institutions is more commonly related to the objective of the institution; that is to say, area vocational schools have more precise and limited objectives than do the community colleges. For the above reasons the lowest and highest grades in the district and in the high school were recorded for each school in the study.

Enrollments in CWE Programs: The heart of this report involves the data collected about students enrolled in concurrent work-education programs. These data included (wherever possible) age, sex, grade, job assignment activities, and the hourly wage. It should be noted here that hourly wage was seen as an essential element in the work assessment. It is the conviction of the research staff that in order for a student to have a bonafide job experience, he needs to be working for an hourly wage and have the concommitant productive responsibility and accountability. This, of course, eliminates from this study project-oriented programs such as those conducted by Agriculture Education where the student works on the family farm and ends up selling the pig. Individuals and groups within otherwise acceptable CWE programs who were involved in the project method were eliminated also.

Anyone inspecting our data on the number of Work-Study students and comparing it with the number of students reported by each state to the United States Office of Education, will find the "N" reported herein greatly depressed in comparison. The explanation of this difference is rather straightforward. This project assumed that the number of students actively involved in Work-Study at the time (at the end of the spring semester 1966) the data were collected would approximate the average daily number

of students in Work-Study. It is not atypical for students to enter and drop out of Work-Study continuously through the year. States report the number of students who were involved regardless of the length of time they spend in the program.

Summer Work-Study programs occasionally have a far greater enrollment than the regular semester programs, and the summer programs for 1966 were reported for the fiscal year 1966. The research project ignores summer programs and this again contributed to the difference in "N" between our report and USOE reports. I would defend the project "N" used as more accurate and defensible than the USOE "N," because the "N" reported herein more closely approximates the average daily student membership in Work-Study throughout the 1965-66 school year.

Financing the Instructional Programs: In addition to the financial data available from the annual reports made to USOE, which give a rather detailed breakdown of the distribution of federal funds for vocational education, it was considered necessary to make an assessment of the financial capability of the individual schools. The predominant reason given for limited offerings particularly in vocational education is the lack of funds. Consequently, it was deemed necessary to make some evaluation of the money available for instructional purposes for each of the schools included in the study. This was accomplished in the following way: The states were ranked from one through fifty on the basis of data analyzed by the National Education Association. The differentiation within states was in terms of high, medium, and low categorization of the money available for instruction. The data used was dependent upon what was available from the individual state offices. When available, the average daily costs for instruction (not including capital outlays, debt retirement, and

transportation) was used to divide the schools in the state into the three foremontioned categories. In instances where these data were not available more gross measures had to be utilized. The research staff is confident that as the result, we have the states ranked in terms of finances available for instruction and the schools within the states categorized on a similar basis.

Population Density: The states spend a considerable amount of time preparing reports for USOE on students enrolled in vocational education programs, but the identity of the individual schools is lost. In this study the identity was retained so that an assessment could be made of the population density of the area in which the schools were located. It was felt that to identify a high school, area school, or community college as residing within a given state was not sufficiently discriminating for the purpose of this study, since the variance within states almost equals the variance across states in terms of population density. For this reason, in addition to identifying each school within the sample and each school with CWE programs with their respective state, they were also identified with the city in which the school resided; and from this, it was possible to determine the population density of the area in which the school was located. The population density was coded according to the following criteria: The code of "1" was given those schools in the 25 large cities of the United States as identified by the Bureau of Census. These, of course, upon occasion are more than one political entity such as the Minneapolis-St. Paul area. The code of "2" was assigned to the Standard Metropolitan Areas which also include upon occasion more than one political entity such as the Allentown-Bethlehem-Easton area of Pennsylvania. The code of "3" was assigned to cities over 50,000 that were not Standard Metropolitan

Statistical Areas as per the census. A "4" was assigned to cities between 25,000 and 49,999; "5" to cities between 10,000 and 24,999; "6" to cities between 5,000 and 9,999; and "7" to those under 5,000. The intent of coding the school location by population density was to differentiate (although in a gross fashion) the large industrial complex from the smaller school locations, because it was felt that placement opportunities in co-operative programs might well be related to this factor.

Non-Reimbursed Programs: The intent of the questionnaire was to discover whether or not schools in the random sample had CWE programs which were reimbursable but for which they did not request reimbursement. This required that the respondents be given a definition sufficiently precise to permit them to interpret their offerings. All other questions on the questionnaire were either redundant in light of data available from the state office (as mentioned before) or were included as a service to the graduate students employed on the project.

Organization of the Report

About 1960, it was reported that there were over 1,500 concurrent work-education programs among 27,000 public high schools and an unknown number of programs in the more than 500 junior colleges in the United States. CWE data and methods of collection and reporting data differ from state to state. This report will attempt to systematize and consolidate the data that exist relative to concurrent work-education programs in the various governmental offices throughout the 50 states.

The data collection relative to concurrent work-education programs from the states and schools was considered to be slightly independent of data collection via mail questionnaires to the random sample; and as the

consequence, these two shall be treated independently in each phase of the report. In addition, since the phase of concurrent work-education programs typically considered cooperative education, differs significantly from work-education programs supported under Section 13 of Public Law 88-210, these will be treated independently also.

CHAPTER II

WORK-STUDY

Conditions Set by Public Law 88-210

The simplest way to describe the conditions under which Work-Study programs can be operated is to quote from the Law. These stipulations are as follows:

Work-Study Programs for Vocational Education Students

Sec. 13. (a) (1) From the sums appropriated pursuant to section 15 and determined to be for the purposes of this section for each fiscal year, the Commissioner shall allot to each State an amount which bears the same ratio to the sums so determined for such year as the population aged fifteen to twenty, inclusive, of the State, in the preceding fiscal year bears to the population aged fifteen to twenty, inclusive, of all the States in such preceding year.

(2) The amount of any State's allotment under paragraph (1) for any fiscal year which the Commissioner determines will not be required for such fiscal year for carrying out the State's plan approved under subsection (b) shall be available for reallotment from time to time, on such dates during such year as the Commissioner may fix, to other States in proportion to the original allotments to such States under paragraph (1) for such year, but with such porportionate amount for any of such other States being reduced to the extent it exceeds the sum the Commissioner estimates such State needs and will be able to use for such year and the total of such reductions shall be similarly reallotted among the States not suffering such a reduction. Any amount reallotted to a State under this paragraph during such year shall be deemed part of its allotment for such year.

(b) To be eligible to participate in this section, a State must have in effect a plan approved under section 5 and must submit through its State board to the Commissioner a supplement to such plan (hereinafter referred to as a "supplementary plan"), in such detail as the Commissioner determines necessary, which--

(1) designates the State board as the sole agency for administration of the supplementary plan, or for supervision of the administration thereof by local educational agencies;

(2) sets forth the policies and procedures to be followed by the State in approving work-study programs, under which policies and procedures funds paid to the State from its allotment under subsection (a) will be expended solely for the payment of compensation of students' employed pursuant to work-study programs which meet the requirements of subsection (c), except that not to exceed 1 per centum of any such allotment, or $10,000, whichever is the greater, may be used to pay the cost of developing the State's supplementary plan and the cost of administering such supplementary plan after its approval under this section;

(3) sets forth principles for determining the priority to be accorded applications from local educational agencies for work-study programs, which principles shall give preference to applications submitted by local educational agencies serving communities having substantial numbers of youths who have dropped out of school or who are unemployed, and provided for undertaking such programs, insofar as financial resources available therefor make possible, in the order determined by the application of such principles;

(4) sets forth such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of, and accounting for, Federal funds paid to the State (including such funds paid by the State to local educational agencies) under this section;

(5) provides for making such reports in such form and containing such information as the Commissioner may reasonably require to carry out his functions under this section, and for keeping such records and for affording such access thereto as the Commissioner may find necessary to assure the correctness and verification of such reports.

(c) For the purposes of this section, a work-study program shall --

(1) be administered by the local educational agency and made reasonably available (to the extent of available funds) to all youths in the area served by such agency who are able to meet the requirements of paragraph (2);

(2) provide that employment under such work-study program shall be furnished only to a student who (A) has been accepted for enrollment as a full-time student in a vocational education program which meets the standards prescribed by the State board and the local educational agency for vocational education programs assisted under the preceding sections of this part, or in the case of a student already enrolled in such a program, is in good standing and in full-time attendance, (B) is in need of the earnings from such employment to commence or continue his vocational education program, and (C) is at least fifteen years of age and less than twenty-one years of age at the commencement of his employment, and is capable, in the opinion of the appropriate school authorities, of maintaining good standing in his vocational education program while employed under the work-study program;

(3) provide that no student shall be employed under such work-study program for more than fifteen hours in any week in which classes in which he is enrolled are in session, or for compensation which exceeds $45 in any month or $350 in any academic year or its equivalent, unless the student is attending a school which is not within reasonable commuting distance from his home, in which case his compensation may not exceed $60 in any month or $500 in any academic year or its equivalent;

(4) provide that employment under such work-study program shall be for the local educational agency or for some other public agency or institution;

(5) provide that, in each fiscal year during which such program remains in effect, such agency shall expend (from sources other than payments from Federal funds under this section) for the employment of its students (whether or not in employment eligible for assistance under this section) an amount that is not less than its average annual expenditure for work-study programs of a similar character during the three fiscal years preceding the fiscal year in which its work-study program under this section is approved.

(d) Subsections (b), (c), and (d) of section 5 (pertaining to the approval of State plans, the withholding of Federal payments in case of nonconformity after approval, and judicial review of the Commissioner's final actions in disapproving a State plan or withholding payments) shall be applicable to the Commissioner's actions with respect to supplementary plans under this section.

(e) From a State's allotment under this section for the fiscal year ending June 30, 1965, and for the fiscal year ending June 30, 1966, the Commissioner shall pay to such State an amount equal to the amount expended for compensation of students employed pursuant to work-study programs under the State's supplementary plan approved under this section, plus an amount, not to exceed 1 per centum of such allotment, or $10,000, whichever is the greater, for the administration of such plan after its approval by the Commissioner. From a State's allotment under this section for the fiscal year ending June 30, 1967, and for the next succeeding fiscal year, such payment shall equal 75 per centum of the amount so expended. No State shall receive payments under this section for any fiscal year in excess of its allotment under subsection (a) for such fiscal year.

(f) Such payments (adjusted on account of overpayments or underpayments previously made) shall be made by the Commissioner in advance on the basis of such estimates, in such installments, and at such times, as may be reasonably required for expenditures by the States of the funds allotted under subsection (a).

(g) Students employed in work-study programs under this section shall not by reason of such employment be deemed employees of the United States, or their service Federal service, for any purpose.

Work-Study Programs among the States

It was not the intent of this study to collect data about the intent of school districts to maintain or expand concurrent Work-Study programs; however, the unsolicited comments are worth reporting prior to reporting on the data.

To generalize across the states, it seems fair to say that there is a concentrated effort to expand concurrent work-education programs. This requires an investment of time to gain employment statistics and to overcome difficulties with labor union restrictions; but the investment is made by individual teachers, often at the expense of their free time. Work-Study with its "make work" provisions is a different story.

The states and the schools had great hope for this provision of Public Law 88-210, but no money to finance it. Therefore, the required local contribution of 25% brought about a decline in emphasis during the 1966-1967 school year. It is the author's opinion that this is unfortunate. This was the first time vocational education money went to the student. It provided spending money, and more often than not provided schools and teachers with much needed assistance. Experience as a teacher's assistant may have induced many youngsters to consider teaching as their life-work.

A federal spending program that contributes a majority of the costs for roads, dams, etc., should be able to support (ever so modestly) the greatest resource of all -- students. To support students within the social system of the school seems more defensible than to remove them (via the job corps) or engage them in social problems (via the N.Y.C.) with which they are already overburdened.

The selection of the time period immediately prior to the end of the 1965-66 school year was fortuitous in respect to Work-Study. Sufficient time had elasped to permit the establishment and growth of programs in Work-Study, but the time that school districts or the state were required to pay 25% of the cost of these programs had not yet arrived. At the beginning of the 1966-67 school year, Work-Study programs received 75%

of their support from federal funds and 25% from state and local, with federal funds limited so that if the programs had continued to grow in number, there would have been insufficient funds to support them all. As the consequence, during the 1966-1967 school year there were fewer Work-Study programs than at the time this study was conducted. There is a temptation to be disappointed because state and local school officials find themselves unable to continue a program when the federal government requires that they make the small contribution of 25%. This temptation is easily avoided if we look instead at MDTA programs and federal support. Local authorities will not continue a well-established program for even one week if the federal funds are not available. There are many examples of MDTA programs being closed because local officials will not continue withthe programs for one or two weeks until more federal money is available. At least in public vocational education, the programs that are promoted by full federal support do not vanish as soon as the state or local educational agency is required to make a financial contribution.

Expenditures on Work-Study

During the school year, the 50 states spent in excess of $757 million on vocational education, of which slightly over $224 million came from the federal government. Of the money that came from the federal government, slightly over $20 million was spent on Work-Study. Another way of stating this would be that, of the total amount of money spent for vocational education among the 50 states, 29.7% came from the federal government; and the expenditures on Work-Study represent nine percent of this. If we look at the expenditures on Work-Study in relation to the total expenditures for vocational education, we find that approximately 2.7 percent

of the money spent was used for Work-Study. The expenditures across states are reported in Table I and Table II of the appendix. The purpose of discussing the amount of money spent on Work-Study is to pinpoint its rather modest place in vocational education.

Schools with Work-Study Programs

Even though Work-Study was funded late and the school year 1965-1966 was the first year for this program, there were a total of 2704 schools across the United States that had operating programs during the school year.

Table A below presents the number of schools with Work-Study programs and with cooperative programs in the various areas of vocational education. The cooperative programs will be discussed later; the intent of the presentation of this table is to indicate the relationship between the existence of cooperative programs in the various services and Work-Study programs. The law stipulates that sutdents enrolled in Work-Study must also be enrolled in a vocational program. Table A does not present the relationship between the existence of Work-Study and the existence of a vocational education offering, since it can be assumed that every school that had a Work-Study program also had some form of vocational education. The nature of the Work-Study program with its supervised work activity is very similar to cooperative programs, and the thought here is that the existence of cooperative programs with the concommitant personnel capabilities should have facilitated the establishment of Work-Study programs. The data indicate that only one-third of the enrollment in all cooperative programs was in schools which also had Work-Study. It is therefore obvious that a number of schools which previously had no programs of organized work

activity for the students were encouraged to generate such a program by the Work-Study provision of Public Law 88-210.

Table A
Schools with Work-Study and Cooperative Programs

	N
Work-Study & Cooperative Agriculture Education	069
Work-Study & Cooperative T & I	289
Work-Study & Cooperative Distributive Education	634
Work-Study & Cooperative Business Education	261
Work-Study & Cooperative Home Economics Education	7
Work-Study & Cooperative Health Education	2
Work-Study & Cooperative Diversified Occupations	153

Enrollment in Work-Study

The combined enrollments in all of the schools with Work-Study programs totaled 1,932,050 students. Table B below presents the correlation between the enrollments in Work-Study and enrollments in other cooperative programs in the same schools. The number of pairs of enrollment figures differs for each correlation reported. These pairs are consistent with Table A, therefore the probability level for each correlation is reported.

Table B
Correlations between Enrollment in Work-Study and Other Cooperative Programs

Work-Study & Agriculture Education	r = -.12	P>.1
Work-Study & T & I	r = .38	P<.01
Work-Study & Distributive Education	r = .12	P<.01
Work-Study & Business Education	r = .17	.01<P<.05
Work-Study & Health Education		
Work-Study & Diversified Occupations	r = -.07	P>.1
Work-Study & Home Economics Education	r = .13	P>.1

Correlations were also computed between enrollments in Work-Study programs and selected demographic, economic, and organizational variables related to the individual schools. Because of the nature of the data, different correlation techniques were used in each case; however, with these variables, all 2704 Work-Study programs were included in the calculations.

Table C

Correlation of Work-Study Enrollments with
Demographic, Economic, and Organizational Variables

Work-Study Enrollment &	Population Density or the School Location	r = -.26
Work-Study Enrollment &	Total Enrollment of the School	r = .24
Work-Study Enrollment &	The Lowest Grade in the District	r = .32
Work-Study Enrollment &	The Lowest Grade in the School	r = .19
Work-Study Enrollment &	The Rank Order of State on Expenditures For Education	r = -.23
Work-Study Enrollment &	Comparative Wealth of Schools within States	r = -.01

Correlation between Work-Study enrollment and population density, although differing in direction from the correlation between Work-Study and total enrollment, are indicative of the same thing. The reason for the difference in direction between the two correlations is the coding system used for population density, which was explained previously. Further verification of the similar meaning of the aforementioned correlation is the correlation between population density coding and total enrollment, which is equal to -.59. From these correlations, it is concluded that the large cities and large schools are more likely to have Work-Study programs

than are the small schools in the smaller cities or towns.

The system used to inspect the school district organization and individual school organization was to correlate the lowest grade under the superintendent's jurisdiction and the lowest grade under the principal's jurisdiction with enrollment in Work-Study and the other variables. The district organization is related to population density and total enrollment with a correlation of -.19 and .32 respectively. The same is true for the school organization except that the correlations are slightly higher, being -.33 and .37 respectively. Therefore, the inspection of the relationship between the existence of Work-Study programs and school district organization is confounded because of the correlation of organization with population. It is possible that partial correlation might give some insight, but the descriptive nature of this report does not warrant such detailed statistical analysis.

The relationship between enrollments in Work-Study programs and the measures of school wealth showed that the states that have the greater amount of funds available for education are more likely than the poorer states to have taken advantage of the Work-Study provision of Public Law 88-210. Within the states, there is no relationship between the comparative wealth of school districts and the existence of Work-Study programs. The reader is cautioned against making any great conclusions as the result of these correlations, because poverty stricken children can and do exist in even the wealthiest social setting and Work-Study is designed to serve them wherever they are. This does, however, indicate that the intent of the Work-Study provision to alleviate some pockets of poverty did not find realization.

There were approximately 18,000 high schools (schools offering grades ten, eleven, and twelve) in the United States during the school year 1965-1966. Of these, 2509 had a Work-Study offering. (See Table IV in the appendix for programs by states.) This represents 14% of the high schools. The total high school enrollment in grades ten, eleven, and twelve for the 1965-1966 school year was 8,575,000. The total enrollment of the high schools with Work-Study programs was 1,616,510 which is equal to 18.8% of the aforementioned total enrollment. The higher procentage of enrollment represented, as a contrast to the percentage of schools represented, is another indication that Work-Study programs were slightly over represented in larger schools.

There were 195 Work-Study programs operated by post-high school institutions; these included area vocational schools, community colleges, and technical institutions which were part of four-year colleges. Because of the diversity of these institutions, it is impossible to make any statements relative to the percent of institutions or the proportion of the enrollment represented in Work-Study programs.

There were 44,817 high school students enrolled in Work-Study programs and 7,418 post-high school students; these two combine for a total of 52,235 students in Work-Study programs. As would be expected, because of the requirements for enrollment in Work-Study, a small proportion of the total number of students enrolled in United States high schools were represented in the Work-Study programs; in fact, they represent .52% of the high school enrollment. Nevertheless, the growth in less than one year from no programs to 2709 programs with an enrollment of over 52 thousand students must be regarded as phenomenal.

Questionnaire Responses on Work-Study

In concluding this chapter, I want to discuss briefly the questionnaire responses. As was explained earlier in this report, a questionnaire was sent to a random sample of schools throughout the United States and information was solicited from those schools as to whether or not they had a Work-Study program. This was a redundant question since the project collected data from the state offices on all programs that existed during the 1965-1966 school year.

Analysis of the questionnaire responses in relation to existing enrollment data shows that there was agreement between the questionnaire responses and the state office data on 1216 responses out of the 1535 returned; or 79% of the responses agreed with the data collected from the state office. Of the remaining 21%, a sizable portion could not be resolved because the respondents may have answered that they had Work-Study programs in disagreement with the project data, because they had them during the summer only. However, there are 125 cases where schools received reimbursement for Work-Study programs and in the questionnaire response said "No, we did not have a Work-Study program during the school year 1965-1966." This is an error rate of eight percent. The error rate across states varied from zero percent in sparsely populated states with small schools to 14.6% in densely populated states with large schools. Errors of this magnitude lead me to conclude that still another nail has been driven in the coffin of mailed questionnaire studies.

Table D

Relationship of Questionnaire Responses to State Office Data

Programs Existing During
Academic Year 1965-1966

Questionnaire Responses	YES	NO	
YES	161	194	355
NO	125	1055	1180
	286	1249	1535

(1535 returns represent 83.6% of the 1836 questionnaires mailed)

CHAPTER III

COOPERATIVE WORK-EDUCATION

Objectives and Conditions

The Vocational Education Act of 1963 is permissive in terms of the states operating cooperative work-education programs. The operating conditions are specified in each state plan and thereby become the legal conditions governing the conduct of cooperative programs. There is overall agreement among the 50 state plans upon the requirements that cooperative programs must meet in order to be eligible for reimbursement. Two state plans are cited below -- California and Texas:

California: Section 2.38-52: Cooperative Education Programs

> Cooperative education programs will be offered to provide occupational training for persons who, through a cooperative agreement between the school and the employer, receive related occupational instruction and on-the-job training through part-time employment.
>
> Training plans (preferably in writing) will be developed cooperatively between the school and employers. Such agreements will provide for: (a) the employment of student-learners in conformity with federal, state, and local laws and regulations and in a manner not resulting in exploitation of such student-learners for private gain (b) an organized program of training on the job (c) related occupational instruction in school.
>
> Student-learners will be paid the prevailing wage for part-time employment and will receive school credit for on-the-job training.

Texas: Section 2.38-52: Cooperative Work Experience Programs

> Cooperative work experience programs shall be provided through cooperative arrangements between the school and employers in which students receive part-time vocational instruction in the school and on-the-job training through part-time employment.
>
> Such classes must be organized through cooperative arrangements in writing between the schools providing vocational instruction to student-learners in the class and the employers providing on-the-job training through part-time employment of such student-learners. Such arrangements shall provide for (1) the employment of student-learners in conformity with

> Federal, State, and local laws and regulations in a manner not resulting in exploitation of such student-learners for private gain, (2) an organized program of training on the job for a minimum average of fifteen hours per week, and (3) supplemental vocational instruction in school for an average of one class period per day.

The citations from California and Texas were selected because they represent the two areas of difference relative to conditions for cooperative education. All of the states require (quite naturally since a program could not exist without it) an agreement between the school, the student, and the employer. The only difference that exists is that some of the states require that this agreement be in writing and others do not stipulate that it must be in writing. California, as can be seen above, leaves the agreement optional, whereas Texas requires a written agreement.

Neither California nor Texas stipulates that the student must have released time during the school day for work. Five states do so stipulate and three of them specify that the student must be released five hours per week. All of the states require that there be supplemental, formal classroom instruction. Referring again to the citations above, California does not specify how many hours this need be; but Texas, as do five other states, stipulates that there must be five hours of supplemental instruction per week.

California is one of four states that specifies that the student will receive school credit for his on-the-job training. The rest, as does Texas, fail to mention credit for the work experience. Only three of the states, Connecticut, Florida, and Rhode Island, specify a minimum age for the student to participate in cooperative programs, and in each case this minimum age is 16 years.

Texas and nine other states require that the student be employed a minimum number of hours per week; for nine of the states this minimum is 15 hours; Nebraska, which also specifies a minimum, lists that minimum as ten hours per week.

Each and every state plan makes some mention of the wage that the student-learner must be paid. The California and Texas citations are the most common form used. Eight states elaborate upon the common wage requirements to require that the hourly rate paid the student must be consistent with the prevailing wage for a given occupation in the geographical area in which the student is working.

It is apparent from reviewing the 50 state plans that USOE has had a considerable influence on not only the structure of the state plan, but also on the terminology used in preparing it. The objectives of cooperative work-education are inherent in the conditions cited above; the overriding objective stated in descriptive literature from the states and specified in Public Law 88-210 is to prepare a student for gainful employment.

Cooperative Work-Education Programs among the States

There were a total of 4800 cooperative work-education programs among the various states during the 1965-1966 school year. This does not mean that there were 4800 individual schools with cooperative programs, because that is not the case. However, the 4800 figure is more representative of the opportunity for cooperative work-education experience offered to United States high school students than are the figures reported by USOE. USOE generally reports on the number of coordinators and often times, especially in Distributive Education where the enrollment is high, there will be more than one coordinator to a school. Before discussing in detail the distribution of cooperative work-education programs among the states and among the areas of vocational education, it is in order to present briefly a relationship between cooperative programs and the Work-Study programs discussed in the previous chapter. Table E below shows the enrollment in cooperative programs for the various vocational services dichotomized on schools with Work-Study and schools without Work-Study.

Table E

Enrollments in Cooperative Work-Education Programs by Service Across Wrok-Study and No Work-Study High Schools

	Work-Study	No Work-Study
Agriculture	550	2,489
T & I	7,238	15,652
Distributive Education	15,956	41,513
Business Education	6,357	11,498
Home Economics Education	81	325
Diversified Occupations	5,289	10,014
Totals	35,481	81,491

The enrollments by services and in total again indicate that although there is some overlap, there is a different segment of the school population being served by Work-Study and cooperative work-education respectively.

An additional point to be handled here is the matter of cooperative work-education programs in the Health Occupations. The Health Occupations typically have clinical experience as part of their education program. The clinical experience satisfies many of the conditions of cooperative work-education, but because these occupations have been studied in depth and described in detail by other research reports, they are not considered as part of this study, with the exception of two programs in Connecticut which had a bonafide cooperative work arrangement for their students in the Health area. It is my intent to cite these two programs here and then cease to consider them.

Granted that each of the services in vocational education has something unique to offer students in cooperative programs, there is undoubtedly more difference between cooperative programs and other vocational education programs than there is difference among the cooperative programs of the various services. This is to suggest that a cooperative program, particularly a Diversified Occupations program, is a unique offering in any school. Roughly two-thirds of the schools that had a cooperative offering had only one such cooperative; about 22% had two cooperative programs; approximately nine percent had three cooperative programs operating concurrently; a few had four, but no school had more than four programs. Table F shows the pairings of cooperative programs; that is the schools that have for example both Agriculture and Distributive Education or both Agriculture and Diversified Occupations.

Table F

Pairs of Cooperative Programs

Agriculture	296					
T & I	37	926				
Distributive Education	51	560	2193			
Business Education	29	313	564	246		
Home Economics Education	0	5	19	6	25	
Diversified Occupations	3	68	144	82	3	515
	Ag	T & I	D.E.	B.E.	H.E.	D.O.

Before discussing the separate offerings, I would like to discuss briefly the relationship between some of the demographic variables and cooperative programs in general. A contingency coefficient derived from a chi-square frequency table indicates a value of c = .39 as a measure of relationship between the number of cooperative education programs in a given school and the population density of the locality in which the school resides. This is sufficiently large to demonstrate that the larger schools in the larger cities are more likely than smaller schools to have one or more cooperative programs.

The wealth of the state in terms of its ability to support education is correlated with population density and total enrollment in the school. These in turn, are correlated with the existence of cooperative programs. Therefore, even though the contingency coefficient c = .55 is large for a measure of association between the wealth of the state and the existence of cooperative programs, there are a number of confounding variables associated with this contingency. When the existence of cooperative programs within the state is tested for relationship with the differential wealth of the school district within that state, the contingency coefficient

decreases; c = .13. In Table F above, the pairs of cooperative offerings were shown. Table G below gives the correlation between enrollments in these pairs.

Table G

Correlations between Enrollments
in Cooperative Programs

Agriculture						
T & I	.13					
Distributive Education	.23	.35**				
Business Education	.29	.55**	.41**			
Home Economics Education	.00	.93**	-.22	-.41		
Diversified Occupations	-.26	.49**	.12	.09	.99**	
	Ag	T & I	D.E.	B.E.	H.E.	D.O.

** Significant beyond .01

The significant correlation between Distributive Education and Business and Office Occupations is quite a natural relationship, since both programs concentrate on placing students in sales-oriented enterprises. Although Home Economics cooperative enrollments are significantly correlated with enrollments in T & I and Diversified Occupation, the N, as seen in Table F, is small; and as a consequence, there is nothing much to be said about these correlations. It is very common for T & I supervisors to have responsibility for the establishment and operation of Diversified Occupations programs. It is therefore not unexpected that there is a significant correlation between the enrollments in these two programs. The significant correlation between the enrollments in T & I and cooperative Distributive and Business and Office Occupations programs is undoubtedly

due to the existence of all three of these in the major population centers of the United States; whereas the lack of significant correlation between the enrollments in cooperative Agriculture and the other services seems to reinforce the idea that Agricultural cooperative programs are found more often in the smaller, less densely populated areas.

In discussing the cooperative programs across the services, I will start with Distributive Education because it has the largest enrollment, and discuss the programs in order of descending enrollment.

Cooperative Distributive Education

At the risk of being redundant, I will mention again that Distributive Education has the longest history of involvement with cooperative programs. It also has the greatest number of programs (a total of 2193 across all of the states), and the largest total enrollment of 59,393 of which 57,479 students are in the high school. (For a distribution of Distributive Education programs across the states, see TABLE IV in the appendix.)

The enrollments in cooperative Distributive Education programs were correlated with population density, total enrollment of the school, school district organization, school organization, rank order of wealth of the state, and the comparative wealth of the schools within the state. (See Table H). Of these correlations, the first four are significant and indicate again that Distributive Education programs are found in large cities, in schools with large enrollments, and in school districts and high schools that have a narrow range of administrative responsibility. There is, however no significant correlation between the enrollments and the wealth of the state or of the particular school districts within the state.

Table II

Correlation of Distributive Education Enrollments with Demographic, Economic, and Organizational Variables

Distributive Education Enrollments &	Population Density or the School Location	r = -,21
Distributive Education Enrollments &	Total Enrollment of the School	r = .25
Distributive Education Enrollments &	The Lowest Grade in the District	r = .13
Distributive Education Enrollments &	The Lowest Grade in the School	r = .16
Distributive Education Enrollments &	The Rank Order of State on Expenditures for Education	r = -.03
Distributive Education Enrollments &	Comparative Wealth of Schools within States	r = -.03

Cooperative Trade and Industrial Education

T & I, with 923 programs in the 50 states with a total enrollment of 23,845 of which 22,890 students were in high schools, is second to Distributive Education in size. It is also second in terms of the length of involvement in cooperative programs. The correlation of enrollments in T & I programs and demographic, economic, and organizational variables is presented in Table I. The pattern and the interpretation of these correlations would be the same as those for Distributive Education, with the exception that the correlation between school district organization and T & I enrollments is not sufficiently high to be significant at the .01 level. This lack of relationship between the grade span of the district and enrollments in T & I programs may result from the relationship of T & I in general to industrial arts programs which exist across elementary and high schools.

Table I

Correlation of Trade and Industrial Education Enrollments with Demographic, Economic, and Organizational Variables

T & I Enrollment & Population Density or the School Location	r = -.27
T & I Enrollment & Total Enrollment of the School	r = .19
T & I Enrollment & The Lowest Grade in the District	r = .02
T & I Enrollment & The Lowest Grade in the School	r = .11
T & I Enrollment & The Rank Order of State on Expenditures for Education	r = -.04
T & I Enrollment & Comparative Wealth of Schools within States	r = -.05

Cooperative Business and Office Occupations Education

Cooperative programs in Business Education (henceforth Business Education is being used and interpreted to include Office Occupations) were newer on the educational scene than either Distributive Education or T & I. They do, however, exist in 29 of the 50 states with a total of 846 programs and an enrollment of 18,248 students. As was the case with the cooperative programs discussed previously, by far the major portion of the enrollment is in high schools. In this case, Business Education has 17,855 students enrolled in cooperative programs in high schools. The correlations of enrollments with other schools and social data are presented in Table J. The pattern of correlations for cooperative Business Education follows that of T & I, except that in this case there is a significant correlation between the comparative wealth of the schools within the states and the enrollment in cooperative Business Education programs.

Table J

Correlation of Business Education Enrollments with Demographic, Economic, and Organizational Variables

Business Education Enrollment &	Population Density or the School Location	r = -.30
Business Education Enrollment &	Total Enrollment of the School	r = .34
Business Education Enrollment &	The Lowest Grade in the District	r = -.04
Business Education Enrollment &	The Lowest Grade in the School	r = .18
Business Education Enrollment &	The Rank Order of State on Expenditures for Education	r = -.06
Business Education Enrollment &	Comparative Wealth of Schools within States	r = -.14

Cooperative Diversified Occupations

Diversified Occupations, a relatively new program, typically has a strong relationship to cooperative T & I. The reader is to be reminded here that Diversified Occupations is not necessarily the term used in all of the states, but it seemed to be the term most applicable to programs in which students were not restricted to employment in areas which could not be categorized according to a specific vocational education area. Diversified Occupations programs exist in 13 states in which there are a total of 515 schools with programs and a total student enrollment of 15,540. Table K presents the correlations between variables in the same fashion as they have been presented for the previous cooperative programs. In this instance, district organization and the comparative wealth of schools are not significantly correlated with enrollment in Diversified Occupations.

Table X

Correlation of Diversified Occupations Enrollment with Demographic, Economic, and Organizational Variables

Diversified Occupations Enrollment &	Population Density or the School Location	r = -.37
Diversified Occupations Enrollment &	Total Enrollment of the School	r = .44
Diversified Occupations Enrollment &	The Lowest Grade in the District	r = -.01
Diversified Occupations Enrollment &	The Lowest Grade in the School	r = .14
Diversified Occupations Enrollment &	The Rank Order of State on Expenditures for Education	r = -.14
Diversified Occupations Enrollment &	Comparative Wealth of Schools within States	r = -.11

Cooperative Agriculture Education

Cooperative programs in Agriculture and Home Economics are a very recent vintage. Home Economics has only 25 programs in six states with a modest enrollment of 454 students; therefore, it is not being discussed. Agriculture, however, has a total of 206 programs with an enrollment of 3,235 students in 11 states. With the exception of Michigan, all 11 of the states are noted for having large agricultural enterprises, and the existence of cooperative programs in Agriculture Education seems to make good sense. I think it can be expected that cooperative programs will shortly blossom in a number of other agriculturally oriented states.

As was discussed earlier, cooperative Agriculture programs stand alone in terms of their location in the school district within the states. Following the pattern of presenting correlations between cooperative enrollments and selected variables, these correlations will be found for

cooperative Agriculture in Table L. The only significant correlation is the correlation between the organizational structure of the district and enrollment in cooperative Agriculture. The lack of a significant correlation with population density, wealth of the state, and wealth of the school reinforces the earlier comments that cooperative Agriculture programs are more likely to be found in the smaller schools in the smaller towns.

Table L

Correlation of Agriculture Education Enrollments with
Demographic, Economic, and Organizational Variables

Agriculture Education Enrollment &	Population Density or the School Location	r = -.06
Agriculture Education Enrollment &	Total Enrollment of the School	r = .14
Agriculture Education Enrollment &	The Lowest Grade in the District	r = .18
Agriculture Education Enrollment &	The Lowest Grade in the School	r = .07
Agriculture Education Enrollment &	The Rank Order of State on Expenditures for Education	r = .09
Agriculture Education Enrollment &	Comparative Wealth of Schools within States	r = -.05

Questionnaire Responses on Cooperative Work-Education

As was mentioned before, 1836 questionnaires were sent to a random sample of schools in the United States. Of these, there were 1757 high schools and 83 post-high school institutions. The 1757 represents 9.3 percent of the 1876 public high schools in the United States during the academic year 1965-1966. Of the mailed questionnaires, 1535 were returned, of which 425 indicated they had reimbursed cooperative education programs. If

we were to extrapolate from this sample to the total population, we would then conclude that there are about 4000 schools with cooperative vocational education programs. This is not the case; there are 3333 individual institutions with cooperative work-education programs.

If we follow the same pattern of interpreting questionnaire responses, we would expect about 1800 public schools in the United States to have cooperative work-education programs similar to those reimbursed from vocational education funds, but for which the schools did not request reimbursement. As was suggested in the brief discussion of questionnaire responses to Work-Study programs, this data is of very limited value, and I interpret the discrepancies between the questionnaire data and the state office data to be the result of the inherent shortcomings of mailed questionnaires. The questionnaire format is presented in the appendix and I would reiterate that a lot of time and effort was expended to insure reliable and valid responses; however, I cannot at this juncture form any great conclusions as the result of the returns.

CHAPTER IV

SUMMARY

Distributive Education has the longest history of cooperative programs and the greatest number of programs and the greatest number of students enrolled. Because of the nature of job placement in Distributive Education, there was no reason to expect concentration in either the major population centers or in smaller towns. The program enrollment ranged from one to 228 students with the mode being 20 students. There was, however, a rather significant clustering of the programs (accounting for about 33% of the total number of programs) in cities over 50,000.

The enrollment in T & I cooperative programs ranged from one student to 415 students. The modal enrollment is 25. Just as we would expect Agriculture to be located in the smaller rural cities, we would also expect T & I to be located in the centers of population wherein reside the major manufacturing complexes. It is true that the greatest proportion of student enrollment in T & I was in the major population centers; however, T & I has cooperative programs across all of the classifications of population density used by this research project.

The enrollment in Business Education ranged from one student to 161 students with the mode being 18. The distribution of programs across centers of population was much the same for Business and Office Occupations as it was for Distributive Education. In this case, roughly 37% of the programs were in cities of over 50,000.

Diversified Occupations, which by its nature should have no relationship to population density since students are permitted to work at just about any occupation, did find programs distributed across all of the population density classifications; and it had a student enrollment range from one to 216 with the mode being 25. It must be recognized, however,

that Diversified Occupation programs have not yet found favor with all of the states. Alabama, Florida, Illinois, Minnesota, Missouri and North Carolina account for the major portion of Diversified Occupation cooperative programs.

The programs in cooperative Agriculture ranged in enrollment from one student to 95 students with approximately 78% of the programs having 12 or fewer students enrolled.

I think it was to be expected that cooperative Agriculture programs would find their major emphasis in the smaller rural, agriculturally oriented communities. And although There were Agriculture programs recorded in even the largest metropolitan centers, over half of all of the Agriculture programs were in cities or towns of less than 25,000 people with over 28% of the cooperative programs being in towns of less than 5000.

There are so few programs of a cooperative nature in Home Economics that it does not seem worthy of analysis. Those that did exist clustered in six states. Suffice it to say the enrollments ranged from six to 36 students and the programs were found in all population centers with the exception of the 25 major megalopolises.

There were 2451 schools that had cooperative programs but did not have Work-Study programs; there were 1823 schools that had Work-Study programs and no cooperative programs. Of the schools with cooperative work-education programs, two-thirds had only one offering.

Some of the data collection and analysis provided less than overwhelming information. For example, using correlations to assess the relationship between the financial capabilities of the educational institutions across the states proves to be a rather fruitless endeavor. The same was

true of the correlation analysis of financial capabilities of the schools within the states. This is to say, that there seemed to be no significant relationship between wealth of states or wealth of the schools within the states and any of the offerings in concurrent work-education.

In the process of summarizing the state data, correlations were computed between employment, unemployment, and number of offerings in each of the cooperative programs and in Work-Study by state. These, in turn, were tested for relationship with the rank order of the state on money available to education. It was expected that there would be a significant correlation between the number of Work-Study programs and the total unemployment in a given state, as well as between the number of Work-Study programs and the money available to education in a given state. Only one of these correlations proved to be significant beyond the .01 level: Work-Study -- unemployment r = .56. However, the number of offerings in cooperative Agriculture was also highly correlated with unemployment: Cooperative Agriculture -- unemployment r = .58. The number of offerings in Home Economics and Diversified Occupations did not correlate significantly with any of the other summary variables. The number of offerings in cooperative Agriculture, T & I, Distributive Education, Business Education were all highly inter-correlated. The correlation between the wealth of the state and the other summary variables was in no case sufficiently high to be significant to the .01 level.

In discussing some of the futility of data collection, it is necessary to summarize the disconcerting amount of error in the returns on the mailed questionnaire. The project was fortunate in that we had data from the state offices about reimbursed cooperative programs and Work-Study

programs. In checking this data against the yes-no responses on the mailed questionnaires. There was no alternative but to conclude that the mailed questionnaire data was of doubtful validity and reliability. As the consequence, not much could be said about the existence of non-reimbursed cooperative programs.

CHAPTER V

DISCUSSION AND INTERPRETATION

Chapter V - Discussion and Interpretation / 1

As the result of visits, ranging from a few hours to a number of days, with the offices of education in the various states, the research staff developed some subjective feelings about a number of aspects of these educational bureaus. The subjective feelings of each of the persons who visited a given state were recorded in the form of anecdotal comments (for a significant portion of the states there was more than one person involved). Thankfully the anecdotal comments demonstrated reliable interpretations among the members of the research staff in relationship to the factors about to be discussed.

I do not want the reader to interpret the forthcoming remarks as an assessment of the strengths of the vocational programs in the states. In some respects this chapter seems to be totally unrelated to the strength of the programs.

As was discussed earlier in this report, some of the information gathered about schools came from the state superintendent's office, although the bulk of information came from the Vocational Education Department. In the process of gathering information from these two sources, the research staff developed some feeling about the extent to which there was communication among the various services in the state office. We cannot assess whether Special Education, for example, has a strong pattern of continuous communication with the related services in the state office; but we can assess whether or not vocational education has a strong pattern. It was generally considered that vocational education did not maintain active communication with the other departments within the state office; and generally, it did not maintain communication with departments from which vocational education could benefit by having contact. An example of

the lack of communication would be the state of Wisconsin, whereas an example of a strong pattern of continuous communication would be Colorado.

Integration and communication are naturally highly correlated but are independent here because facilities can also be considered. Some state offices of education are scattered throughout a number of buildings, whereas others are all housed in the same structure. Pennsylvania, Oregon, and Washington have all their state educational offices in the same building, whereas Oklahoma and New York are examples of offices being scattered. It is very common for vocational education to be housed independently of the rest of the educational enterprise as soon as there is the use of more than one building. Oklahoma, for example, has its vocational education office 65 miles removed from the rest of the state offices. It seems apparent that physical separation militates against integrated activity and continuous communication; however, some states have managed to maintain integration and communication even though separate facilities are used. I would cite Idaho as an example of this.

Although the intent of the Vocational Education Act of 1963 was in part to enhance the cooperation among services of vocational education, typically there are numerous instances where this has yet to be accomplished. Illinois is a good bad example. It cannot be suggested that the size of the program makes integration within vocational education difficult or impossible, because a fine example of an integrated state office for vocational education exists in one of the largest programs in the country -- in Texas.

It would be expected that of the various offerings in public education, vocational education would be the area most eager to use and most

capable of understanding electronic data processing. We are, after all, committed to maintaining up-to-date knowledge about technological advances, particularly those that have influence upon the occupational structure. Further, it seems that vocational education at the state office level has the greatest need for a system that facilitates accounting. The school districts submit to the state office in some cases very detailed information about vocational education programs -- teachers, students, activities, and related information. A portion of this information is required to be tabulated and submitted to USOE to justify the expenditures of federal funds. It is readily apparent that communication among state office departments, physical and administrative integration within the state office and within vocational education is necessary in order that data processing systems can be efficiently used. Although many of the state departments of vocational education do not take advantage of data processing facilities of the state office when they exist, it is pleasing to note that there is a movement toward the use of these systems. Oregon and California are currently formulating plans which will permit vocational education data to be processed electronically. At this writing, Florida is making the most complete use of data processing for vocational education. If I were to make one recommendation to vocational education designed to facilitate the use of data processing equipment in student accounting, I would suggest vocational education use Social Security numbers as the means of student identification, which is identical to the system being used by Florida in vocational education, by the University of Illinois for all of its students, and by the Iowa Educational Information Service for all students within the state of Iowa.

Chapter V - Discussion and Interpretation /

The research staff collected data not only from the state offices, but also from related agencies, particularly the State Teachers Association. In some instances the State Teachers Association had more discrete enrollment data than did the state office. In all cases the State Teachers Association had more complete information on teachers salaries. In one instance, the state of Arkansas, the source of student enrollments in grades ten, eleven, and twelve was the Athletic Association.

Within vocational education the location and arrangement of data relating to public school offerings ranged from an individual to a structured system. It was not uncommon for the individual who was capable of locating and explaining vocational education data to be a secretary. Nor was it uncommon for the professional personnel to have changed positions and still be considered the repository of information about the programs they had supervised on their previous assignment. It may be considered rather pleasing that many of the state offices are personality oriented in terms of information about programs; but the lack of continuity as personnel change becomes distressing. It seems desirable to develop a uniform information reporting system and a system-oriented means of recording, storing, tabulating, and reporting this information. Two good examples of a well organized system are Colorado and Florida. The best example of uniform recording formats across the states is in the area of Distributive Education.

The professional vocational educators who originally organized state programs in vocational education back in the twenties either have retired or are about to retire. The first generation is on its way out. The size of the staff, which in most respects is unrelated to the size of

the program in the state, has become fairly stable. I think it can be expected that second and third generation vocational educators will shortly, if not already, be responsible for the functions in vocational education. Most of the state offices are still manned by the "old guard" ("old guard" is used here with affection), but there are individuals and rare areas among the states where the "young turks" (used here with affection) have taken over the reins. Missouri and New Jersey have their young turks. It will be interesting in years to come to see what effect, if any, they have upon state structure in vocational education.

I would like at this juncture to mention briefly some isolated but pertinent situations that point up unique state department involvements in cooperative education.

New York City had a rather interesting program called STEP. This was designed to offer a work-study program for potential dropouts. STEP (The School to Employment Program) has a minimum age requirement of 15 or 16. A well organized program such as STEP fits the D.O. category of many other school districts. However, it was specifically designed to combat the dropout problem. Upon inspection of the job placement of students, it was concluded that the actual operation was similar to Diversified Occupations programs in other states.

In Missouri the student enrollment in T & I and Distributive Education are reported on the same form. Although a differentiation is made between the two programs in some instances, it is not made consistently; and in many cases the two programs are handled by the same coordinator. As the result of this mix and without making any judgment of the efficiency of the arrangement, the research project tabulated all the enrollments

under diversified occupations since D.O. is typically designed to handle cooperative programs that cut across the traditional areas. This seems consistent with the fact that cooperative programs are under one supervisor at the state level, rather than under individual services. The term C.O.E. is the generic term used on all report forms. C.O.E. is used interchangeably with D.E. and T & I in designating the related class period on the schedule. SIC and DOT numbers are frequently reported in mixed sequence.

Utah had a program that placed under-achieving students in service occupations. Although the programs received some guidance from the state supervisor of Distributive Education, they did not limit the student placement to distributive occupations. There were five such programs with a total enrollment of exactly 100 students. Because of the varied nature of student employment, these programs were tabulated under Distributive Occupations.

California has a program called Work Experience that exists both in the high school and the junior college. In many ways it is not unlike Work-Study under the provision of Public Law 88-210. One major difference is that the students do not have to demonstrate financial need. There have been some state supported studies of the Work Experience program, but there are no data of a statewide nature available.

The Work-Study programs in Wisconsin were concentrated in the post-high school institutions by design, and a significant proportion of the students were employed as aids to teachers.

Although cooperative work-education programs are not widespread in post-high school institutions across the fifty states, the state of Washington has a rather unique and extensive cooperative program in

Business Education called "Mid Management." This program is attracting considerable attention in other states and can be expected to generate additional cooperative programs especially in junior colleges.

It seems to me that tax supported agencies must lead the way in providing work stations for students. NASA, Huntsville, has the largest cooperative work-education program for college students in the United States. The United States Navy has long been involved in cooperative programs for engineering students. Placement is the problem.

The federal legislation seemed to indicate that USOE was desirous of doing away with or at least modifying, the influence of the various divisions within the state offices of vocational education. Typically each state office has a division for Trade and Industrial Education, Distributive Education, Office Occupations Education, Home Economics Education, Agricultural Education, Technical Education, and in some cases Diversified Occupations Education. When the states are considered in total, each of these divisions has some concurrent work-education programs; however, with the exception of Distributive Education, there are no divisions that have concurrent work-education programs across all of the states.

There are numerous authorities in education and social science throughout the United States (Morris Janowitz of Chicago being a prime example) who consider bonafide occupational experience as being socially meaningful regardless of the kind of task the student performs. This idea, coupled with the apparent rivalry among the areas of vocational education and a tendency to group cooperative education students into Diversified Occupations in those cases where either the program at the school is relatively small or where coordinators and/or the state office are unable

to agree upon which area of vocational education the student should be assigned, leads me to believe that cooperative education should be considered as an entity without subdivisions.

It has been said that "He who pays the piper calls the tune." Many aspects of data reporting on vocational education are consistent with the above quote in that states report to USOE those things that they are required to report in order to justify the expenditures of federal money. By and large, these reports relate to the number of teachers and coordinators employed throughout the state. In addition, there are reports about the occupational fields they are serving by the various areas of vocational education. The tabulation of the number of students involved is not essential for reimbursement and therefore is very loosely calculated and generally includes anyone who ever enrolled, if for only one day.

The state, in turn, requires information from the schools which is generally considerably more extensive than that which is reported to USOE; and there are many filing cabinets in state offices filled with information about students that has never been used in any fashion. The easiest thing to come by is a tabulation of the names, addresses, and phone numbers of instructors, coordinators, and supervisors by service area. The United States Department of Agriculture can tell you how many pigs were slaughtered in Chicago any morning and provide this information by two p.m. of that same day. We in vocational education generally cannot provide accurate information about the number of students involved in our programs even if given a few months to perform the tabulations. It is my hope that this report provides some information about students and the offerings available to them across schools among the fifty states.

APPENDIX I

TABLE I

EXPENDITURES FOR VOCATIONAL EDUCATION, FISCAL YEAR 1966 C/

	Total	Federal	State	Local
TOTAL	$771,141,879	$228,106,946		
Alabama	18,031,262	24.1%	35.3%	40.6%
Alaska	729,840	49.1%	25.7%	25.2%
Arizona	6,179,702	30.0%	30.9%	37.1%
Arkansas	9,157,514	35.9%	34.5%	29.6%
California	61,067,992	27.2%	1.3%	71.5%
Colorado	6,118,322	55.5%*	7.1%	37.4%
Connecticut	9,539,917	25.0%	66.2%	8.8%
Delaware	2,430,690	25.3%	66.8%	7.9%
Florida	30,865,945	22.2%	18.0%	59.8%
Georgia	19,720,627	34.2%	26.7%	39.1%
Hawaii	2,734,335	36.6%	63.4%	-----
Idaho	2,940,186	37.7%	23.2%	39.1%
Illinois	25,461,226	38.7%	18.5%	42.8%
Indiana	16,100,683	35.1%	10.9%	54.0%
Iowa	8,276,648	41.1%	8.8%	50.1%
Kansas	7,960,435	36.0%	11.4%	52.6%
Kentucky	14,005,952	35.3%	44.3%	20.4%
Louisiana	14,403,915	35.6%	4.5%	59.9%
Maine	2,658,676	40.6%	41.5%	17.9%
Maryland	14,958,853	25.1%	37.0%	37.9%
Massachusetts	26,414,970	19.5%	31.7%	48.8%
Michigan	32,820,856	29.2%	9.3%	61.5%
Minnesota	15,451,761	30.5%	26.2%	43.3%
Mississippi	12,447,791	36.1%	29.9%	34.0%
Missouri	8,881,869	31.2%	10.0%	58.8%
Montana	1,700,851	35.3%	17.6%	47.1%
Nebraska	4,389,810	44.3%	11.2%	44.5%
Nevada	4,763,229	12.2%	7.0%	80.8%
New Hampshire	4,080,963	20.0%	18.0%	62.0%
New Jersey	19,266,510	32.1%	29.8%	38.1%
New Mexico	3,949,576	38.0%	5.6%	56.4%
New York	74,556,120	24.3%	37.1%	38.6%
North Carolina	31,105,583	29.4%	45.8%	24.8%
North Dakota	3,383,710	37.0%	26.3%	36.7%
Ohio	33,091,647	33.2%	30.0%	36.8%
Oklahoma	13,062,263	28.6%	8.4%	63.0%
Oregon	7,302,329	31.5%	31.7%	36.8%
Pennsylvania	40,329,014	31.2%	17.6%	51.2%
Rhode Island	4,051,833	28.7%	57.1%	14.2%
South Carolina	12,887,211	34.1%	36.5%	29.4%
South Dakota	2,878,488	37.5%	8.7%	53.8%
Tennessee	16,981,048	36.2%	31.9%	31.9%
Texas	54,673,850	25.8%	52.6%	21.6%
Utah	6,026,111	23.7%	3.0%	73.3%
Vermont	2,108,453	29.8%	43.3%	26.9%
Virginia	19,437,087	29.1%	32.9%	38.0%
Washington	14,387,099	25.2%	25.6%	49.2%
West Virginia	8,375,107	34.9%	9.4%	55.4%
Wisconsin	19,761,218	25.9%	27.7%	46.4%
Wyoming	232,801	55.6%	-----	44.4%

* more than 50% because Work-Study requires no matching

TABLE II

EXPENDITURES FOR WORK-STUDY 1965-1966

	Federal	State and/ or Local	Percent of Federal Spent on Work-Study
TOTALS	$20,192,878	$528,523	8.97%
Alabama	263,286		6.06%
Alaska	000		
Arizona	190,037		10.15%
Arkansas	348,992		10.62%
California	1,673,186	8,832	10.07%
Colorado	207,697	6,117	6.12%
Connecticut	153,941		6.45%
Delaware	122,460	50,000	19.91%
Florida	748,757		10.93%
Georgia	623,133	1,965	9.24%
Hawaii	107,771		10.80%
Idaho	7,480		6.73%
Illinois	875,781		8.89%
Indiana	208,274		3.68%
Iowa	201,157		7.13%
Kansas	107,921		3.77%
Kentucky	415,559		8.41%
Louisiana	537,117	45,339	10.47%
Maine	38,514		3.56%
Maryland	109,471		
Massachusetts	733,096		14.23%
Michigan	1,037,441		10.82%
Minnesota	306,232		6.50%
Mississippi	500,136		11.13%
Missouri	5,553		.20%
Montana	2,009		.34%
Nebraska	183,350		9.43%
Nevada	45,575		7.84%
New Hampshire	12,589		15.42%
New Jersey	914,011		14.78%
New Mexico	146,539		9.74%
New York	2,717,486		14.99%
North Carolina	572,948		6.26%
North Dakota	109,283	1,755	8.73%
Ohio	448,587		4.08%
Oklahoma	417,388		11.17%
Oregon	189,696		8.25%
Pennsylvania	959,266	218,242	13.51%
Rhode Island	144,994	8,244	6.27%
South Carolina	394,189	19,855	8.97%
South Dakota	25,832		2.93%
Tennessee	628,203	45,494	10.22%
Texas	1,324,053	693	2.42%
Utah	211,840	13,035	9.13%
Vermont	000		
Virginia	161,027		2.84%
Washington	410,643		11.31%
West Virginia	356,232	85,508	12.18%
Wisconsin	234,440	23,444	11.86%
Wyoming	59,706		5.73%

TABLE III

TOTAL ENROLLMENT GRADES 10, 11, 12 and 12 ONLY

PUBLIC HIGH SCHOOLS ONLY

	10, 11, 12	12 only		10, 11, 12	12 only
Alabama	163,508	47,692	Montana	34,465	10,633
Alaska	.8,949	2,575	Nebraska	65,810	20,490
Arizona	66,610	20,252	Nevada	18,391	5,273
Arkansas	89,878	27,347	New Hampshire	25,168	7,882
California	831,071	250,388	New Jersey	251,000	79,000
Colorado	94,042	29,288	New Mexico	51,603	15,754
Connecticut	102,278	31,766	New York	629,330	180,463
Delaware	20,402	6,109	North Carolina	235,205	69,117
Florida	245,059	51,537	North Dakota	31,650	10,012
Georgia	194,604	81,868	Ohio	437,787	140,746
Hawaii	30,379	11,735	Oklahoma	123,868	37,320
Idaho	38,890	13,883	Oregon	99,118	31,127
Illinois	376,607	123,057	Pennsylvania	463,794	142,507
Indiana	220,205	69,451	Rhode Island	20,240	9,238
Iowa	129,994	48,019	South Carolina	107,615	34,715
Kansas	107,166	35,717	South Dakota	34,687	10,739
Kentucky	144,034	40,583	Tennessee	167,240	50,287
Louisiana	143,037	41,769	Texas	446,808	182,488
Maine	42,416	13,952	Utah	55,874	16,491
Maryland	143,938	43,621	Vermont	16,301	4,997
Massachusetts	192,749	58,500	Virginia	182,201	54,323
Michigan	342,253	111,000	Washington	153,960	49,764
Minnesota	173,423	54,549	West Virginia	92,855	27,839
Mississippi	103,023	30,355	Wisconsin	186,362	59,342
Missouri	183,657	57,267	Wyoming	17,328	6,031
			TOTALS	8,140,920	2,552,858

TABLE IV

CONCURRENT WORK-EDUCATION PROGRAMS

	Work-Study	Agriculture	T & I	D.E.	B.E.	Home Ec	D.O.	Total Cooperative
TOTALS	2704	296	923	2193	846	25	515	4800
Alabama	94	0	68	66	37	0	30	201
Alaska	0	0	0	4	0	0	0	4
Arizona	19	0	9	32	7	0	0	48
Arkansas	152	0	0	21	0	0	17	38
California	126	131	0	86	0	0	0	217
Colorado	44	5	6	37	0	4	0	52
Connecticut	43	0	1	23	3	2	2	33
Delaware	29	0	0	9	0	0	0	9
Florida	78	0	0	60	36	0	142	238
Georgia	13	0	0	43	40	0	75	158
Hawaii	34	0	3	10	5	0	0	18
Idaho	3	0	0	10	9	0	1	20
Illinois	117	11	79	87	35	0	93	305
Indiana	11	10	34	34	2	9	1	90
Iowa	66	0	27	28	31	0	0	86
Kansas	26	5	14	23	16	0	2	60
Kentucky	56	0	0	52	0	0	0	52
Louisiana	111	0	0	35	12	0	0	47
Maine	5	0	10	4	0	0	0	14
Maryland	19	1	6	18	1	0	0	26
Massachusetts	34	0	19	31	8	0	0	58
Michigan	113	97	145	189	201	0	0	632
Minnesota	12	0	13	41	30	0	20	104
Mississippi	119	0	24	18	0	0	0	42
Missouri	108	0	0	0	0	0	77	77

Table IV continued

TABLE IV (continued)

CONCURRENT WORK-EDUCATION PROGRAMS

	Work-Study	Agriculture	T & I	D.E.	B.E.	Home Ec	D.O.	Total Cooperative
Montana	1	0	0	9	0	0	0	9
Nebraska	12	2	3	12	0	0	9	26
Nevada	6	0	0	7	2	0	2	11
New Hampshire	3	0	0	1	0	0	0	1
New Jersey	95	0	48	48	34	0	0	130
New Mexico	32	0	0	17	1	0	3	21
New York	169	0	49	149	69	0	32	299
North Carolina	139	0	110	133	0	0	0	243
North Dakota	33	0	0	12	33	0	0	45
Ohio	49	0	4	113	56	5	0	178
Oklahoma	62	4	22	38	25	0	0	89
Oregon	12	0	0	41	0	0	0	41
Pennsylvania	27	0	0	61	0	0	0	61
Rhode Island	11	6	6	3	0	1	0	16
South Carolina	105	0	26	62	0	0	0	88
South Dakota	2	0	0	12	1	0	2	15
Tennessee	60	0	21	49	0	0	0	70
Texas	220	8	81	221	50	0	2	362
Utah	40	0	2	30	17	4	5	58
Vermont	0	16	2	6	0	0	0	24
Virginia	75	0	90	105	76	0	0	271
Washington	47	0	0	79	0	0	0	79
West Virginia	47	0	0	11	1	0	0	12
Wisconsin	21	0	1	5	5	0	0	11
Wyoming	7	0	0	8	3	0	0	11

TABLE V

CONCURRENT WORK-EDUCATION ENROLLMENT
BY PROGRAM

	TOTALS	HIGH SCHOOLS ONLY
Total Enrollment in Schools with CWE	4,285,587	3,969,847
Total Enrollment in CWE Programs	173,513	161,852
Total Enrollment in Work-Study	52,235	44,817
Total Enrollment in all Cooperative Programs	121,278	117,035
Total Enrollment in Cooperative Distributive Education	59,893	57,479
Total Enrollment in Cooperative Trade and Industry	23,845	22,890
Total Enrollment in Cooperative Business Education	18,248	17,855
Total Enrollment in Diversified Occupations	15,540	15,303
Total Enrollment in Cooperative Agriculture	3,235	3,039
Total Enrollment in Cooperative Home Economics	454	406
Total Enrollment in Cooperative Health Occupations	63	63

APPENDIX II

UNIVERSITY OF ILLINOIS COLLEGE OF EDUCATION

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

57 EAST ARMORY AVENUE
CHAMPAIGN, ILLINOIS 61820
TELEPHONE (217) 333-6178

Dear School Administrator:

Concurrent work-education programs are a rapidly expanding type of educational program. Some educators feel they are especially suitable to the needs of many non-University bound students and, as such, a welcomed addition to the curriculum. It is vital to our national study that you, as a representative of a carefully selected sample of schools, be responsive to this letter.

"Concurrent work-education programs" include all school programs which provide students with formal education and conjunctive work experience. Please *check* the boxes below indicating whether you had various types of concurrent work-education programs in the years noted. Answer completely—positive and negative responses are equally important to us.

65-66 ☐Yes ☐No 66-67 ☐Yes ☐No **Reimbursed Cooperative Vocational Education:** Program titles such as Distributive Education, Office Occupations, Diversified Occupations as well as many less universal titles are included. Also included are agriculture programs which *intend* to place *all* students in part-time jobs for wages during the regular school year. *Excluded here are (1) vocational programs which occasionally or incidentally place students, and (2) reimbursed cooperative programs described in the categories below.*

65-66 ☐Yes ☐No 66-67 ☐Yes ☐No **Work-Study:** A program where students in vocational programs, who have need of financial assistance, are placed in public agencies (mainly the local school). This program is defined and subsidized under the provisions of Public Law 88-210.

65-66 ☐Yes ☐No 66-67 ☐Yes ☐No **Non-reimbursed Cooperative Vocational Education:** These programs may in many respects be similar to "Reimbursed Cooperative Vocational Education" above but they do not receive Federal reimbursement under the provisions of vocational education legislation. *Excluded here are special programs for the "handicapped" described below.*

65-66 ☐Yes ☐No 66-67 ☐Yes ☐No **Work-Education for "Handicapped":** Students who are not likely to profit from regular academic and vocational offerings are, for our purposes, considered *handicapped*. They may or may not be served by special education personnel. All of the following descriptive terms are applicable to this concept of handicapped: mentally retarded, slow learners, reluctant learners, potential dropouts, economically disadvantaged, culturally deprived, and alienated.

N = ( ) How many *distinct types* of work-education programs are provided *particularly for* handicapped students? (Excluding Work-Study.)

Sincerely and appreciatively,

William John Schill

William John Schill
Project Director

Respondent's Name

Respondent's Position

CODING FORMAT FOR QUESTIONNAIRE

Column	Item
1	Reimbursed Concurrent Work-Education, 1965-1966
2	Reimbursed Concurrent Work-Education, 1966-1967
3	Work-Study, 1965-1966
4	Work-Study, 1966-1967
5	Non-Reimbursed Concurrent Work-Education, 1965-1966
6	Non-Peimbursed Concurrent Work-Education, 1966-1967
7	Concurrent Work-Education for Handicapped, 1965-1966
8	Concurrent Work-Education for Handicapped, 1966-1967
9	Blank
10	Number of Programs Participating for Handicapped
11	Blank
12	First or Second Questionnaire Returned

CODING FORMAT FOR DATA COLLECTED FOR EACH SCHOOL WITH A CWE PROGRAM

COLUMN	ITEM	CODE
1 thru 12	school name	
13	blank	
14 thru 26	city	
27	blank	
28	population density	1= the 25 metro areas 2= other std. stat. areas 3= other cities over 50,000 4= cities between 25,000 and 49,999 5= cities 10,000 to 24,999 6= towns 5,000 to 9,999 7= all others
29,30,31,32	total enrollment in grades 10,11, and 12	
33,34	lowest grade in school district	
35,36	highest grade in school district	
37,38	lowest grade in the school	
39,40	highest grade in the school	
41,42	rank order of state on money available to education	
43	classification of school within the state on finance	1= high 2= middle 3= low
44,45,46	enrollment in work-study	
47,48,49	enrollment in coop. agriculture	
50,51,52	enrollment in coop. trade and industry	
53,54,55	enrollment in coop. distributive education	
56,57,58	enrollment in business and office occupations	
59,60,61	enrollment in coop. home economics	
62,63,64	enrollment in coop. experimental programs	
65,66,67	enrollment in coop. health occupations	
68,69,70	enrollments in progra ms not classified elsewhere	
71,72,73	enrollment in diversified occupations programs	
74,75,76	school I.D.	
77,78	state I.D.	
79,80	card I D (03)	

CHECK LIST

FILL IN CORRECT NAMES FROM DIRECTORY BEFORE LEAVING THE OFFICE.
IF NECESSARY MAKE CHANGES DURING VISIT.

State _____ Researcher _____ Date _____

Say HELLO to: _____
State Superintendent of Instruction

Explain Project (briefly) to: _____
State Director of Vo-Ed

_____
Secretary

Visit Supervisors:

_____ Work-Study
_____ Secretary

_____ Home Economics
_____ Secretary

_____ T & I
_____ Secretary

_____ Agriculture
_____ Secretary

_____ D.E.
_____ Secretary

_____ Business Ed
_____ Secretary

_____ Office Occupations
_____ Secretary

_____ D.O.

_____ Other

Request:

(1) 4042-4048 forms
(2) State Plan
(3) Areas with CWE
(4) Note Grade Restriction Program

Obtain from each:

Students by:

(1) age
(2) grade
(3) job
(4) school

Obtain from someone:

(1) school enrollments 10, 11, and 12
(2) finances
(3) pertinent publications

Use back of this sheet for anecdotal comments.

CONDUCTED BY:
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WERC

WORK-EDUCATION RESEARCH CENTER

Established pursuant to a contract with the United States Department of Health, Education, and Welfare, Office of Education, to investigate the conduct and consequences of concurrent work-education programs within the public schools.

UNIVERSITY OF ILLINOIS
COLLEGE OF EDUCATION
DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

WERC CONCURRENT WORK-EDUCATION PROGRAMS

CONDUCT AND CONSEQUENCES

Concurrent work-education is an old educational concept that has grown in application during the past few years. Regardless of the reasons for the recent growth of concurrent work-education programs, it is essential that a nationwide assessment be conducted if the overall planning activity of vocational and technical education is to be properly guided. This project is designed to satisfy the need for a nationwide assessment.

DEFINITION

The term "concurrent work-education programs" includes all public high school and junior college programs that provide students with formal education and conjunctive work experience. This definition is broad enough to include programs encompassed by various other general titles in common usage such as *Cooperative Education, Work Education,* and *Work Experience.* More specific titles within the realm of concurrent work-education programs include: *Distributive Education* (D.E.), *Office Occupations* (O.O.), *Diversified Occupations* (D.O.), and many other but usually less universal titles such as *Part-time Industrial Cooperative Education* and *Agri-business.* Recently, the term *work-study* has been specifically defined under Public Law 88-210, and it, too, is included. It is the intent of the above definition, therefore, that any and all programs which satisfy the criteria noted be included in this study. Differences in usage of terminology shall not eliminate programs from this study.

RESEARCH FORMAT

This project has two interrelated parts or phases: (a) a descriptive study of the conduct or status of concurrent work-education programs in each of the 50 states, and (b) an in-depth study of the consequences of concurrent work-education programs at thirty sites.

CONDUCT (DESCRIPTIVE PHASE):

There are over 1,500 concurrent work-education programs among 27,000 public high schools and an unknown number of programs in the more than 500 junior colleges in the United States. Work-education data and methods of collection and reporting data differ from state to state. This phase will attempt to systematize and consolidate the data that exist relative to concurrent work-education programs in the various governmental offices throughout the 50 states and the District of Columbia.

It is expected that the records at U.S.O.E. and the 50 state offices of public instruction will provide some of the following data about concurrent work-education programs:

1. Number of students in concurrent work-education programs by occupational area and sex.
2. Names of schools with concurrent work-education programs and the pertinent school official names.
3. Type of federal assistance given each program and the approximate per cent of the federal contribution to the total cost.
4. Type and number of professional personnel assigned to concurrent work-education programs.